CLAIMS

1. An immersion lithographic system for patterning a work piece arranged at an image plane and covered at least partly with a layer sensitive to electromagnetic radiation, comprising:
   - a source emitting electromagnetic radiation onto an object plane,
   - a modulator, adapted to receive and modulate said electromagnetic radiation at said object plane in accordance to an input pattern description, and to relay said electromagnetic radiation toward said work piece,
   - an immersion medium contacting at least a portion of an immersion optics of said lithographic system and a portion of said work piece, wherein said immersion medium is supplied through at least one orifice arranged in said immersion optic.

2. The apparatus according to claim 1, wherein said modulator is an SLM.

3. The apparatus according to claim 2, wherein said SLM comprises reflective pixels.

4. The apparatus according to claim 3, wherein said reflective pixels are micromirrors.

5. The apparatus according to claim 1, wherein said modulator is a acoustooptical modulator.

6. The apparatus according to claim 1, wherein said source emitting electromagnetic radiation is an excimer laser.

7. The apparatus according to claim 1, further comprising a porous or fibrous material through which said immersion medium is supplied.

8. The apparatus according to claim 1, further comprising at least one immersion medium removal orifice.

9. The apparatus according to claim 8, further comprising a porous or fibrous material through which said immersion medium is removed.

10. The apparatus according to claim 7 or 9, wherein said at porous material is kept incompletely saturated with said immersion medium.

11. An immersion lithographic system for patterning a work piece arranged at an image plane and covered at least partly with a layer sensitive to electromagnetic radiation, comprising
- a source emitting electromagnetic radiation onto an object plane,
- a mask arranged at said object plane to relay said electromagnetic radiation toward said work piece,
- an immersion medium contacting at least a portion of an immersion optics of said lithographic system and a portion of said work piece, wherein said immersion medium is supplied through at least one orifice arranged in said immersion optics.

12. The apparatus according to claim 11, wherein said source emitting electromagnetic radiation is an excimer laser.

13. The apparatus according to claim 11, further comprising a porous or fibrous material through which said immersion medium is supplied.

14. The apparatus according to claim 11, further comprising at least one immersion medium removal orifice.

15. The apparatus according to claim 14, further comprising a porous or fibrous material through which said immersion medium is removed.

16. The apparatus according to claim 13 or 15, wherein said at porous or fibrous material is kept incompletely saturated with said immersion medium.

17. An immersion lithographic system for patterning a work piece arranged at an image plane and covered at least partly with a layer sensitive to electromagnetic radiation, comprising
- a source emitting electromagnetic radiation onto an object plane,

- a modulator, adapted to receive and modulate said electromagnetic radiation at said object plane in accordance to an input pattern description and to relay said electromagnetic radiation toward said work piece,
- an immersion medium contacting at least a portion of a objective lens of said lithographic system and a portion of said work piece, wherein an area of said contacting is restricted by capillary forces.

18. The immersion lithography system according to claim 17, further comprising a immersion medium reservoir for supplying immersion medium to said portion of said objective lens and said workpiece.

19. The immersion lithography system according to claim 18, wherein said immersion medium is supplied through a porous or fibrous material.

20. An immersion lithographic system for patterning a work piece arranged at an image plane and covered at least partly with a layer sensitive to electromagnetic radiation, comprising
- a source emitting electromagnetic radiation onto an object plane,
- a mask, adapted to receive and modulate said electromagnetic radiation at said object plane and to relay said electromagnetic radiation toward said work piece,
- an immersion medium contacting at least a portion of a final lens of said lithographic system and a portion of said work piece, wherein an area of said contacting is restricted by capillary forces.

21. The immersion lithography system according to claim 17, further comprising a immersion medium reservoir for supplying immersion medium to said portion of said objective lens and said workpiece.

22. The immersion lithography system according to claim 18, wherein said immersion medium is supplied through a porous or fibrous material.

23. A method for patterning a workpiece arranged at an image plane and covered at least partly with a layer sensitive to electromagnetic radiation, including the actions of:
- emitting electromagnetic radiation onto an object plane,

- modulating said electromagnetic radiation at said object plane in accordance to an input pattern description,
- relaying said electromagnetic radiation toward said workpiece,
- supplying an immersion medium to contact at least a portion of an objective lens of said lithographic system and at least a portion of said workpiece.

24. The method according to claim 23, further comprising the action of:
- restricting a lateral extension of said contact by capillary forces.

25. A method for patterning a workpiece arranged at an image plane and covered at least partly with a layer sensitive to electromagnetic radiation, including the actions of:
- emitting electromagnetic radiation onto an object plane,
- modulating said electromagnetic radiation at said object plane in accordance to an input pattern description,
- relaying said electromagnetic radiation toward said workpiece,
- contacting at least a portion of an objective lens of said lithographic system and at least a portion of said workpiece via a immersion medium, wherein said contacting is restricted in a lateral direction of said workpiece by capillary forces.

26. The method according to claim 25, further including the action of:
- supplying said immersion medium via a immersion medium reservoir.

27. The method according to claim 26, wherein said immersion medium is supplied through a porous or fibrous material.

28. A method for patterning a workpiece arranged at an image plane and covered at least partly with a layer sensitive to electromagnetic radiation, including the actions of:
- emitting electromagnetic radiation onto an object plane,
- modulating said electromagnetic radiation at said object plane in accordance to an input pattern description,
- relaying said electromagnetic radiation toward said workpiece,
- forming an immersion medium film to contact at least a portion of an objective lens of said lithographic system and at least a portion of said workpiece,

- supplying immersion medium to said immersion medium film to maintain its lateral dimensions while moving said objective lens over said workpiece.